

Claims

1. Method of rough-honing the circumferential surface (3) of a bore (2) in the partial cut by a honing tool (5) with honing stones (7) on an overhung-mounted working spindle (6), the longitudinal axis (M_A) of which is inserted eccentrically before honing into the bore (2) with offset (S) to the longitudinal axis (M_B) of the bore (2), and during the honing operation the removal of material in the bore (2) is implemented such that a displacement of the longitudinal axis (M_B) of the bore (2) is effected until any deflection which has occurred is eliminated and the longitudinal axis (M_B) of the finished bore (2) is coaxial with the longitudinal axis (M_A) of the working spindle (6), wherein subsequently in the coaxial position of the longitudinal axes (M_A , M_B) the circumferential surface is uniformly honed in the full cut by rough-honing.

2. Method according to Claim 1, characterized in that at least during the machining of the section of the bore (2) facing away from a slide unit (10) the reciprocating motion of the honing tool (5) is effected by the slide unit (10) such that the working spindle (6) is moved by the slide unit (10) alternately in terms of its longitudinal axis (M_A).

3. Method according to Claims 1 or 2, characterized in that during rough-honing in the partial cut a form-locking incremental feed of the honing stones (7) is effected with defined pause intervals.

4. Method according to one of Claims 1 through 3, characterized in that during the rough-honing in the full cut a frictionally engaged incremental feed is effected, wherein the feed force acting on the honing stones (7) is monitored.

5. Method according to one of Claims 1 through 4, characterized in that during rough-honing in the partial cut a first set of honing stones is impinged upon, and the rough-honing in the full cut is implemented with a second set of honing stones.